

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for providing treatment therapy by a medical device to treat a nervous system disorder comprising the steps of:

(a) implanting at least one therapy delivery element within a body of a patient;

(b) implanting at least one monitoring element for sensing a neurological condition and generating a neurological signal;

(c) coupling the therapy delivery element and the monitoring element to a therapy device, the therapy device including a seizure detection algorithm for processing the neurological signal, wherein the therapy device is capable of delivering therapy to the therapy delivery element and receiving the neurological signal from the monitoring element;

(d) activating the therapy device to begin operation; and

(e) preventing the therapy device from delivering therapy to the patient for a predetermined quantity of block counts after the therapy device has been activated; ~~wherein the predetermined quantity of block counts is configured to allow the seizure detection algorithm to stabilize by~~ monitoring the patient for the predetermined quantity of block counts to establish background data for nervous system disorder detection; and

(f) processing the neurological signal by the seizure detection algorithm, after stabilization, to detect whether a nervous system disorder has occurred using the background data.

2. (Original) The method of providing treatment therapy of claim 1, wherein the therapy device is at least a signal generator, and wherein the therapy delivery element and the monitoring element are at least one electrode.

3. (Original) The method of providing treatment therapy of claim 1, wherein the therapy device is at least a drug delivery device, the therapy delivery element is a catheter, and the monitoring element is at least one sensor.

4. (Original) The method of providing treatment therapy of claim 1, wherein the nervous system disorder is a seizure.

5. (Original) The method of providing treatment therapy of claim 1, wherein the nervous system disorder is selected from the group consisting of a central nervous system disorder, a peripheral nervous system disorder, and mental health disorder and psychiatric disorder.

6. (Original) The method of providing treatment therapy of claim 1, wherein the step of implanting at least one monitoring element comprises the step of implanting an electrode in a brain of the patient for monitoring EEG activity.

7. (Original) The method of providing treatment therapy of claim 1, wherein the step of implanting comprises the step of implanting an electrode in a brain of the patient for monitoring a possible onset of a seizure.

8. (Original) The method of providing treatment therapy of claim 1, wherein the step of activating comprises the step of monitoring a neurological condition of the patient.

9. (Original) The method of providing treatment therapy of claim 1, wherein the step of activating comprises the step of monitoring electrical activity of the patient to determine a possible onset of a seizure.

10. (Original) The method of providing treatment therapy of claim 1, wherein the step of preventing comprises the step of preventing delivery of stimulation energy.

11. (Original) The method of providing treatment therapy of claim 1, wherein the step of preventing comprises the step of preventing delivery of stimulation energy for approximately 30 minutes.

12. (Cancelled).

13. (Previously Presented) The method of providing treatment therapy of claim 1, wherein the predetermined quantity of block counts in the step of preventing is based on a set quantity of information being obtained from the monitoring element.

14. (Currently Amended) A medical device system for treating a nervous system disorder comprising in combination:

- (a) at least one therapy delivery element capable of being implanted within a body of a patient;
- (b) at least one monitoring element capable of sensing a neurological condition and generating a neurological signal;
- (c) a therapy device including a seizure detection algorithm for processing the neurological signal, wherein the therapy device is capable of delivering treatment therapy to the therapy delivery element and receiving a neurological signal from the monitoring element; and
- (d) a processor within the therapy device configured to perform the steps of:
 - (i) activating the therapy device to begin operation; and (ii) preventing the therapy device from delivering therapy to the patient for a predetermined quantity of block counts after the therapy device has been activated, wherein the predetermined quantity of block counts is configured to allow the seizure detection algorithm to stabilize by monitoring the patient for the predetermined quantity of block counts to establish background data for nervous system disorder detection, and (iii) cause the therapy device to process the neurological signal by the seizure detection algorithm, after stabilization, to detect whether a nervous system disorder has occurred using the background data.

15. (Previously Presented) The medical device system of claim 14, wherein the therapy device comprises an implantable pulse generator and the processor is within the implantable pulse generator.

16. (Previously Presented) The medical device system of claim 14, wherein the therapy device comprises an implantable drug delivery device and the processor is within the implantable drug delivery device.

17. (Previously Presented) The medical device of claim 14, wherein the medical device comprises an external wearable device and the processor is within the external wearable device.

18. (Previously Presented) The medical device of claim 14, wherein the medical device comprises an external control system and the processor is within the external control system.

19. (Original) The medical device of claim 14, wherein the monitoring element is capable of monitoring electrical activity of a patient.

20. (Original) The medical device of claim 14, wherein the monitoring element is capable of monitoring electrical activity of a patient to determine a possible onset of a seizure.

21. (Original) The medical device of claim 14, wherein the processor is configured to prevent delivery of stimulation energy for approximately 30 minutes.

22. (Cancelled).

23. (Previously Presented) The medical device of claim 14, wherein the predetermined quantity of block counts in the step of preventing is based on a set quantity of information being obtained from the monitoring element.

Claims 24-27. (Cancelled).

28. (Previously Presented) A method for controlling treatment therapy provided by a medical device comprising the steps of.

(a) implanting at least one therapy delivery element within a body of a patient;

(b) coupling the therapy delivery element to a therapy device,

(c) providing programming information for configuring the therapy device to deliver therapeutic treatment to the body via the therapy delivery element;

(d) determining whether the programming information can result in delivery of therapy with a number of stimulations per detection being above a predetermined limit of stimulations per detection period; and

(e) preventing the therapy device from being configured according to the programming information if it could result in delivery of a number of stimulations per detection period above the predetermined limit of stimulations per detection period.

29. (Previously Presented) A method for controlling treatment therapy provided by a medical device comprising the steps of:

- (a) implanting at least one therapy delivery element within a body of a patient;
- (b) coupling the therapy delivery element to a therapy device,
- (c) providing programming information for configuring the therapy device to deliver therapeutic treatment to the body via the therapy delivery element;
- (d) determining whether the programming information can result in delivery of a therapy delivery with of a number of stimulations per detection cluster being above a predetermined limit of stimulations per detection cluster; and
- (e) preventing the therapy device from being configured according to the programming information if it could result in delivery of a number of stimulations per detection cluster above the predetermined limit of stimulations per detection cluster.

Claims 30-31. (Cancelled).

32. (Previously Presented) A method for controlling treatment therapy provided by a medical device comprising the steps of:

- (a) implanting at least one therapy delivery element within a body of a patient;
- (b) coupling the therapy delivery element to a therapy device,
- (c) calculating parameters that will be used to control a stimulation ON time;
- (d) providing programming information based on the calculated parameters for configuring the therapy device to deliver therapeutic treatment to the body via the therapy delivery element;
- (e) determining whether the programming information can result in stimulation ON time being outside of an acceptable range of between 1 second and 24 hours; and
- (f) preventing the therapy device from being configured according to the programming information if it could result in the stimulation ON time being outside of the acceptable range.

Claims 33-36. (Cancelled).

37. (Previously Presented) A medical device system comprising in combination:

(a) at least one therapy delivery element capable of being implanted within a body of a patient;

(b) a therapy device, wherein the therapy device is capable of delivering treatment therapy to the therapy delivery element; and

(c) a programming device in communication with the therapy device and configured to perform the steps of. (i) receiving programming information for configuring the therapy device to deliver therapeutic treatment to the body via the therapy delivery element; (ii) determining whether the programming information could result in a treatment therapy delivering a number of stimulations per detection period being above a predetermined limit of stimulations per detection; and (iii) preventing the therapy device from being configured according to the programming information if it can result in the stimulations per detection period being above the predetermined limit of stimulations per detection.

38. (Previously Presented) A medical device system comprising in combination:

(a) at least one therapy delivery element capable of being implanted within a body of a patient;

(b) a therapy device, wherein the therapy device is capable of delivering treatment therapy to the therapy delivery element; and

(c) a programming device in communication with the therapy device configured to perform the steps of. (i) receiving programming information for configuring the therapy device to deliver therapeutic treatment to the body via the therapy delivery element; (ii) determining whether the programming information could result in a treatment therapy delivering a number of stimulations per cluster above a predetermined limit of stimulations per cluster; and (iii) preventing the therapy device from being configured according to the programming information if it can result in the treatment therapy delivering a number of stimulations per cluster above the predetermined limit of stimulations per cluster.

Claims 39-42. (Cancelled).

43. (Currently Amended) A method for providing treatment therapy by a medical device to treat a nervous system disorder comprising the steps of:

- (a) implanting at least one therapy delivery element within a body of a patient;
- (b) implanting at least one monitoring element for sensing a neurological condition and generating a neurological signal;
- (c) coupling the therapy delivery element and the monitoring element to a therapy device, the therapy device including a seizure detection algorithm for processing the neurological signal, wherein the therapy device is capable of delivering therapy to the therapy delivery element and receiving the neurological signal from the monitoring element;
- (d) activating the therapy device to begin operation; and
- (e) in response to the activating in (d), preventing the therapy device from delivering therapy to the patient for a predetermined time period immediately after the therapy device has been activated, ~~wherein the predetermined time period is configured~~ to allow the seizure detection algorithm to stabilize by monitoring the patient for the predetermined time period to establish background data for nervous system disorder detection; and
- (f) processing the neurological signal by the seizure detection algorithm, after stabilization, to detect whether a nervous system disorder has occurred using the background data.

44. (Previously Presented) The method of providing treatment therapy of claim 43, wherein the predetermined time period in the step of preventing is a predetermined quantity of block counts.

45. (Currently Amended) A medical device system for treating a nervous system disorder comprising in combination:

- (a) at least one therapy delivery element capable of being implanted within a body of a patient;
- (b) at least one monitoring element capable of sensing a neurological condition and generating a neurological signal;

(c) a therapy device including a seizure detection algorithm for processing the neurological signal, wherein the therapy device is capable of delivering treatment therapy to the therapy delivery element and receiving a neurological signal from the monitoring element; and

(d) a processor within the therapy device configured to perform the steps of:
(i) activating the therapy device to begin operation; and (ii) in response to the activating in step (i), preventing the therapy device from delivering therapy to the patient for a predetermined time period immediately after the therapy device has been activated, wherein the predetermined time period is configured to allow the seizure detection algorithm to stabilize by monitoring the patient for the predetermined time period to establish background data for nervous system disorder detection; and (iii) cause the therapy device to process the neurological signal by the seizure detection algorithm, after stabilization, to detect whether a nervous system disorder has occurred using the background data.

46. (Previously Presented) The medical device of claim 45, wherein the predetermined time period in the step of preventing is a predetermined quantity of block counts.

47. (Previously Presented) The method for controlling treatment therapy of claim 29, wherein the stimulations provided are below a predetermined charge density.

48. (Previously Presented) The method for controlling treatment therapy of claim 47, wherein the predetermined charge density is $30\mu\text{C}/\text{cm}^2/\text{phase}$.